

**Listing of Claims**

1-55. Cancelled

56. (Previously Presented) A computer-implemented method comprising:

selecting a child class from a class hierarchy, wherein

the class hierarchy comprises

the child class, and

a parent class,

the parent class and the child class are associated with one another,

the child class is configured to inherit an attribute of the parent class,

the child class comprises one or more associated attributes,

the one or more associated attributes comprise the attribute,

the one or more associated attributes are configured to describe an item,

the selecting the child class is based on the one or more associated attributes,

the selecting the child class is performed such that each of the one or more

associated attributes has a non-null value to describe the item,

the attribute has a first domain associated with the parent class and a second

domain associated with the child class, and

the second domain is more restrictive than the first domain;

associating the item with the child class, wherein

the attribute describes one or more members of the child class,

the one or more associated attributes are necessary to describe the item, and

the one or more associated attributes are associated with the child class in the

class hierarchy;

storing a first record associating

the item, and

the child class; and

storing a second record associating the item with

the attribute, and

a value of the attribute.

57. (Cancelled)
58. (Previously Presented) The computer-implemented method of Claim 56, wherein the one or more associated attributes further comprise an additional set of attributes not inherited from the parent class.
59. (Cancelled)
60. (Previously Presented) The computer-implemented method of Claim 56, wherein said storing the first record is to a first memory structure, and said storing the second record is to a second memory structure.
61. (Previously Presented) The computer-implemented method of Claim 60 wherein the first and second memory structures are distinct from one another.
62. (Previously Presented) The computer-implemented method of Claim 60 wherein the first and second memory structures are tables in a database.
63. (Previously Presented) The computer-implemented method of Claim 56 wherein the one or more associated attributes are metadata of the child class.
64. (Previously Presented) An apparatus comprising:  
means for selecting a child class from a class hierarchy, wherein  
the class hierarchy comprises  
the child class, and  
a parent class,  
the parent class and the child class are associated with one another,  
the child class is configured to inherit an attribute of the parent class,  
the child class comprises one or more associated attributes,  
the one or more associated attributes comprise the attribute,  
the one or more associated attributes are configured to describe an item,  
the means for selecting the child class is based on the one or more associated attributes,

the means for selecting the child class is configured such that each of the one or more associated attributes has a non-null value to describe the item, the attribute has a first domain associated with the parent class and a second domain associated with the child class, and the second domain is more restrictive than the first domain;

means for associating the item with the child class, wherein the attribute describes one or more members of the child class, the one or more associated attributes are necessary to describe the item, and the one or more associated attributes are associated with the child class in the class hierarchy;

means for storing a first record associating the item, and the child class; and

means for storing a second record associating the item with the attribute, and a value of the attribute.

65. (Cancelled)

66. (Previously Presented) The apparatus of Claim 64, wherein the one or more associated attributes further comprise an additional set of attributes not inherited from the parent class.

67. (Cancelled)

68. (Previously Presented) The apparatus of Claim 64 further comprising: a first and a second memory structure, wherein said means for storing the first record performs said storing to the first memory structure, and said means for storing the second record performs said storing to the second memory structure.

69. (Previously Presented) The apparatus of Claim 68 wherein the first and second memory structures are distinct from one another.

70. (Previously Presented) The apparatus of Claim 68 wherein the first and second memory structures are tables in a database.

71. (Previously Presented) The apparatus of Claim 64 wherein the one or more associated attributes are metadata of the child class.

72. (Previously Presented) A system comprising:  
a processor;  
a memory, coupled to the processor, storing instructions executable on the processor to select a child class from a class hierarchy, wherein  
    the class hierarchy comprises  
        the child class, and  
        a parent class,  
    the parent class and the child class are associated with one another,  
    the child class is configured to inherit an attribute of the parent class,  
    the child class comprises one or more associated attributes,  
    the one or more associated attributes comprise the attribute,  
    the one or more associated attributes are configured to describe an item,  
    the selecting the child class is based on the one or more associated attributes,  
    the selecting the child class is performed such that each of the one or more  
        associated attributes has a non-null value to describe the item,  
    the attribute has a first domain associated with the parent class and a second  
        domain associated with the child class, and  
    the second domain is more restrictive than the first domain;  
associate the item with the child class, wherein  
    the attribute describes one or more members of the child class,  
    the one or more associated attributes are necessary to describe the item, and  
    the one or more associated attributes are associated with the child class in the  
        class hierarchy;

store a first record associating  
the item, and  
the child class; and  
store a second record associating the item with  
the attribute, and  
a value of the attribute.

73. (Cancelled)

74. (Previously Presented) The system of Claim 72, wherein the one or more associated attributes further comprise an additional set of attributes not inherited from the parent class.

75. (Cancelled)

76. (Previously Presented) The system of Claim 72 further comprising:  
a first and a second memory structure;  
the instructions to store the first record perform the storing to the first memory structure,  
and  
the instructions to store the second record perform the storing to the second memory structure.

77. (Previously Presented) The system of Claim 76 wherein the first and second memory structures are distinct from one another.

78. (Previously Presented) The system of Claim 76 wherein the first and second memory structures are tables in a database.

79. (Previously Presented) The system of Claim 72 wherein the one or more associated attributes are metadata of the child class.

80. (Previously Presented) A computer-readable storage medium comprising:
- a first set of instructions, executable on the processor, configured to select a child class from a class hierarchy, wherein the class hierarchy comprises
    - the child class, and
    - a parent class,the parent class and the child class are associated with one another, the child class is configured to inherit an attribute of the parent class, the child class comprises one or more associated attributes, the one or more associated attributes comprise the attribute, the one or more associated attributes are configured to describe an item, the selecting the child class is based on the one or more associated attributes, the selecting the child class is performed such that each of the one or more associated attributes has a non-null value to describe the item, the attribute has a first domain associated with the parent class and a second domain associated with the child class, and the second domain is more restrictive than the first domain;
  - a second set of instructions, executable on the processor, configured to associate the item with the child class, wherein
    - the attribute describes one or more members of the child class,
    - the one or more associated attributes are necessary to describe the item, and
    - the one or more associated attributes are associated with the child class in the class hierarchy;
  - a third set of instructions, executable on the processor, configured to store a first record associating
    - the item, and
    - the child class; and
  - a fourth set of instructions, executable on the processor, configured to store a second record associating the item with
    - the attribute, and
    - a value of the attribute.

81. (Cancelled)

82. (Previously Presented) The computer-readable storage medium of Claim 80, wherein

the one or more associated attributes further comprise an additional set of attributes not inherited from the parent class.

83. (Cancelled)

84. (Previously Presented) The computer-readable storage medium of Claim 80, wherein

the third set of instructions is further configured to store the first record to a first memory structure, and

the fourth set of instructions is further configured to store the second record to a second memory structure.

85. (Previously Presented) The computer-readable storage medium of Claim 84 wherein the first and second memory structures are distinct from one another.

86. (Previously Presented) The computer-readable storage medium of Claim 84 wherein the first and second memory structures are tables in a database.

87. (Previously Presented) The computer-readable storage medium of Claim 80 wherein the one or more associated attributes are metadata of the child class.

88. (Previously Presented) The method of Claim 56, wherein the class hierarchy describes vehicles.